

Amendments to the Claims

Please amend Claims 158, 169, 171, 173, 178, 180, 182, 187, 189, 191, 196, 198, 200, 210, 212-218, 222, 224-230, 234, 241 and 248. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1-22. (Canceled).

23. (Original) A kit for amplifying a portion of a human *FEZ1* gene, the kit comprising a first isolated polynucleotide and a second isolated polynucleotide, wherein the first isolated polynucleotide comprises a portion which anneals with high stringency with at least twenty consecutive nucleotide residues of the coding strand of SEQ ID NO: 1, and wherein the second isolated polynucleotide comprises a portion which anneals with high stringency with at least twenty consecutive nucleotide residues of the non-coding strand of SEQ ID NO:1.

24. (Original) A kit for amplifying a portion of a cDNA generated from a transcript of a human *FEZ1* gene, the kit comprising a first isolated polynucleotide and a second isolated polynucleotide, wherein a portion of the first isolated polynucleotide anneals with high stringency with at least twenty consecutive nucleotide residues of the coding strand of SEQ ID NO: 1, and wherein a portion of the second isolated polynucleotide anneals with high stringency with at least twenty consecutive nucleotide residues of the non-coding strand of SEQ ID NO: 1.

25-157. (Canceled).

158. (Currently amended) An isolated polynucleotide comprising a sequence that anneals under conditions of high stringency to a nucleic acid having the sequence of:
i) SEQ ID NO: 1;

- ii) the complement of SEQ ID NO: 1;
- iii) SEQ ID NO: 2;
- iv) the complement of SEQ ID NO: 2;
- v) SEQ ID NO: 3; and/or
- vi) the complement of SEQ ID NO: 3;

wherein said conditions of high stringency comprise hybridizing said isolated polynucleotide in 0.015 M NaCl, 1.5 mM sodium citrate, and 0.1 % (w/v) SDS at 50°C, with washes at 42°C in 0.2 x SSC and 0.1% (w/v) SDS; and wherein said isolated polynucleotide encodes a protein that binds to a compound selected from the group consisting of an amino-terminal 40 KDa fragment of Fez1, tubulin, EF1- γ , and an amino terminal 153-amino acid fragment of EF1- γ .

- 159. (Previously presented) The isolated polynucleotide of claim 158, wherein said isolated polynucleotide anneals under conditions of high stringency to a nucleic acid having the sequence of SEQ ID NO: 1.
- 160. (Previously presented) The isolated polynucleotide of claim 158, wherein said isolated polynucleotide anneals under conditions of high stringency to a nucleic acid having the sequence of the complement of SEQ ID NO: 1.
- 161. (Previously presented) The isolated polynucleotide of claim 158, wherein said isolated polynucleotide anneals under conditions of high stringency to a nucleic acid having the sequence of SEQ ID NO: 2.
- 162. (Previously presented) The isolated polynucleotide of claim 158, wherein said isolated polynucleotide anneals under conditions of high stringency to a nucleic acid having the sequence of the complement of SEQ ID NO: 2.
- 163. (Previously presented) The isolated polynucleotide of claim 158, wherein said isolated polynucleotide anneals under conditions of high stringency to a nucleic acid having the sequence of SEQ ID NO: 3.

164. (Previously presented) The isolated polynucleotide of claim 158, wherein said isolated polynucleotide anneals under conditions of high stringency to a nucleic acid having the sequence of the complement of SEQ ID NO: 3.
165. (Previously presented) The isolated polynucleotide of claim 158 further comprising a promoter operably linked to said sequence.
166. (Previously presented) The isolated polynucleotide of claim 165, wherein said promoter is selected from the group consisting of a constitutive promoter, an inducible promoter and a tissue specific promoter.
167. (Previously presented) The isolated polynucleotide of claim 158, wherein said protein inhibits tubulin polymerization.
168. (Previously presented) The isolated polynucleotide of claim 158, wherein said protein inhibits cellular proliferation.
169. (Currently amended) The isolated polynucleotide of claim 158, wherein said protein is a ~~tumor suppressor~~ inhibits tumorigenesis.
170. (Previously presented) A nucleic acid vector comprising the isolated polynucleotide of claim 158.
171. (Currently amended) The nucleic acid vector of claim 170 selected from the group consisting of a plasmid, an expression vector and a ~~virus~~ viral vector.
172. (Previously presented) An isolated cell comprising the nucleic acid vector of claim 170.
173. (Currently amended) An isolated polynucleotide comprising a sequence that is ~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of:

i) SEQ ID NO: 1; and/or

ii) the complement of SEQ ID NO: 1;

wherein said isolated polynucleotide encodes a protein that binds to a compound selected from the group consisting of an amino-terminal 40 KDa fragment of Fez1, tubulin, EF1- γ , and an amino terminal 153-amino acid fragment of EF1- γ .

174. (Previously presented) The isolated polynucleotide of claim 173 further comprising a promoter operably linked to said sequence.
175. (Previously presented) The isolated polynucleotide of claim 174, wherein said promoter is selected from the group consisting of a constitutive promoter, an inducible promoter and a tissue specific promoter.
176. (Previously presented) The isolated polynucleotide of claim 173, wherein said protein inhibits tubulin polymerization.
177. (Previously presented) The isolated polynucleotide of claim 173, wherein said protein inhibits cellular proliferation.
178. (Currently amended) The isolated polynucleotide of claim 173, wherein said protein ~~is a tumor suppressor~~ inhibits tumorigenesis.
179. (Previously presented) A nucleic acid vector comprising the isolated polynucleotide of claim 173.
180. (Currently amended) The nucleic acid vector of claim 179 selected from the group consisting of a plasmid, an expression vector and a ~~virus~~ viral vector.
181. (Previously presented) An isolated cell comprising the nucleic acid vector of claim 179.

182. (Currently amended) An isolated polynucleotide comprising a sequence that is ~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of:
- i) SEQ ID NO: 2; and/or
 - ii) the complement of SEQ ID NO: 2;
- wherein said isolated polynucleotide encodes a protein that binds to a compound selected from the group consisting of an amino-terminal 40 KDa fragment of Fez1, tubulin, EF1- γ , and an amino terminal 153-amino acid fragment of EF1- γ .
183. (Previously presented) The isolated polynucleotide of claim 182 further comprising a promoter operably linked to said sequence.
184. (Previously presented) The isolated polynucleotide of claim 183, wherein said promoter is selected from the group consisting of a constitutive promoter, an inducible promoter and a tissue specific promoter.
185. (Previously presented) The isolated polynucleotide of claim 182, wherein said protein inhibits tubulin polymerization.
186. (Previously presented) The isolated polynucleotide of claim 182, wherein said protein inhibits cellular proliferation.
187. (Currently amended) The isolated polynucleotide of claim 182, wherein said protein ~~is a tumor suppressor~~ inhibits tumorigenesis.
188. (Previously presented) A nucleic acid vector comprising the isolated polynucleotide of claim 182.
189. (Currently amended) The nucleic acid vector of claim 188 selected from the group consisting of a plasmid, an expression vector and a ~~virus~~ viral vector.

190. (Previously presented) An isolated cell comprising the nucleic acid vector of claim 188.
191. (Currently amended) An isolated polynucleotide comprising a sequence that is ~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of:
- i) SEQ ID NO: 3; and/or
 - ii) the complement of SEQ ID NO: 3;
- wherein said isolated polynucleotide encodes a protein that binds to a compound selected from the group consisting of an amino-terminal 40 KDa fragment of Fez1, tubulin, EF1- γ , and an amino terminal 153-amino acid fragment of EF1- γ .
192. (Previously presented) The isolated polynucleotide of claim 191 further comprising a promoter operably linked to said sequence.
193. (Previously presented) The isolated polynucleotide of claim 192, wherein said promoter is selected from the group consisting of a constitutive promoter, an inducible promoter and a tissue specific promoter.
194. (Previously presented) The isolated polynucleotide of claim 191, wherein said protein inhibits tubulin polymerization.
195. (Previously presented) The isolated polynucleotide of claim 191, wherein said protein inhibits cellular proliferation.
196. (Currently amended) The isolated polynucleotide of claim 191, wherein said protein ~~is a tumor suppressor~~ inhibits tumorigenesis.
197. (Previously presented) A nucleic acid vector comprising the isolated polynucleotide of claim 191.

198. (Currently amended) The nucleic acid vector of claim 197 selected from the group consisting of a plasmid, an expression vector and a ~~virus~~ viral vector.
199. (Previously presented) An isolated cell comprising the nucleic acid vector of claim 197.
200. (Currently amended) An isolated polynucleotide comprising a sequence that anneals under conditions of high stringency to a nucleic acid having the sequence of
 - i) SEQ ID NO: 1;
 - ii) the complement of SEQ ID NO: 1;
 - iii) SEQ ID NO: 2;
 - iv) the complement of SEQ ID NO: 2;
 - v) SEQ ID NO: 3; and/or
 - vi) the complement of SEQ ID NO: 3;wherein said conditions of high stringency comprise hybridizing said isolated polynucleotide in wherein said conditions of high stringency comprise hybridizing said isolated polynucleotide in 0.015 M NaCl, 1.5 mM sodium citrate, and 0.1 % (w/v) SDS at 50°C, with washes at 42°C in 0.2 x SSC and 0.1% (w/v) SDS; and wherein said isolated polynucleotide encodes a protein that has an activity selected from the group consisting of inhibiting cellular proliferation and tumor suppression.
201. (Previously presented) The isolated polynucleotide of claim 200, wherein said isolated polynucleotide anneals under conditions of high stringency to a nucleic acid having the sequence of SEQ ID NO: 1.
202. (Previously presented) The isolated polynucleotide of claim 200, wherein said isolated polynucleotide anneals under conditions of high stringency to a nucleic acid having the sequence of the complement of SEQ ID NO: 1.
203. (Previously presented) The isolated polynucleotide of claim 200, wherein said isolated polynucleotide anneals under conditions of high stringency to a nucleic acid having the

sequence of SEQ ID NO: 2.

204. (Previously presented) The isolated polynucleotide of claim 200, wherein said isolated polynucleotide anneals under conditions of high stringency to a nucleic acid having the sequence of the complement of SEQ ID NO: 2.
205. (Previously presented) The isolated polynucleotide of claim 200, wherein said isolated polynucleotide anneals under conditions of high stringency to a nucleic acid having the sequence of SEQ ID NO: 3.
206. (Previously presented) The isolated polynucleotide of claim 200, wherein said isolated polynucleotide anneals under conditions of high stringency to a nucleic acid having the sequence of the complement of SEQ ID NO: 3.
207. (Previously presented) The isolated polynucleotide of claim 200 further comprising a promoter operably linked to said sequence.
208. (Previously presented) The isolated polynucleotide of claim 207, wherein said promoter is selected from the group consisting of a constitutive promoter, an inducible promoter and a tissue specific promoter.
209. (Previously presented) A nucleic acid vector comprising the isolated polynucleotide of claim 200.
210. (Currently amended) The nucleic acid vector of claim 209 selected from the group consisting of a plasmid, an expression vector and a ~~virus~~ viral vector,
211. (Previously presented) An isolated cell comprising the nucleic acid vector of claim 209.
212. (Currently amended) An isolated polynucleotide comprising a sequence that is

~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of:

- i) SEQ ID NO: 1;
- ii) the complement of SEQ ID NO: 1;
- iii) SEQ ID NO: 2;
- iv) the complement of SEQ ID NO: 2;
- v) SEQ ID NO: 3; and/or
- vi) the complement of SEQ ID NO: 3;

wherein said isolated polynucleotide encodes a protein that inhibits cellular proliferation.

- 213. (Currently amended) The isolated polynucleotide of claim 212, wherein said isolated polynucleotide is ~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of SEQ ID NO: 1.
- 214. (Currently amended) The isolated polynucleotide of claim 212, wherein said isolated polynucleotide is ~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of the complement of SEQ ID NO: 1.
- 215. (Currently amended) The isolated polynucleotide of claim 212, wherein said isolated polynucleotide is ~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of SEQ ID NO: 2.
- 216. (Currently amended) The isolated polynucleotide of claim 212, wherein said isolated polynucleotide is ~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of the complement of SEQ ID NO: 2.
- 217. (Currently amended) The isolated polynucleotide of claim 212, wherein said isolated polynucleotide is ~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of SEQ ID NO: 3.
- 218. (Currently amended) The isolated polynucleotide of claim 212, wherein said isolated

polynucleotide is ~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of the complement of SEQ ID NO: 3.

219. (Previously presented) The isolated polynucleotide of claim 212 further comprising a promoter operably linked to said sequence.
220. (Previously presented) The isolated polynucleotide of claim 219, wherein said promoter is selected from the group consisting of a constitutive promoter, an inducible promoter and a tissue specific promoter.
221. (Previously presented) A nucleic acid vector comprising the isolated polynucleotide of claim 212.
222. (Currently amended) The nucleic acid vector of claim 221 selected from the group consisting of a plasmid, an expression vector and a ~~virus~~ viral vector.
223. (Previously presented) An isolated cell comprising the nucleic acid vector of claim 221.
224. (Currently amended) An isolated polynucleotide comprising a sequence that is ~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of:
 - i) SEQ ID NO: 1;
 - ii) the complement of SEQ ID NO: 1;
 - iii) SEQ ID NO: 2;
 - iv) the complement of SEQ ID NO: 2;
 - v) SEQ ID NO: 3; and/or
 - vi) the complement of SEQ ID NO: 3;wherein said isolated polynucleotide encodes a protein that ~~is a tumor suppressor~~ inhibits tumorigenesis.
225. (Currently amended) The isolated polynucleotide of claim 224, wherein said isolated

polynucleotide is ~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of SEQ ID NO: 1.

226. (Currently amended) The isolated polynucleotide of claim 224, wherein said isolated polynucleotide is ~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of the complement of SEQ ID NO: 1.
227. (Currently amended) The isolated polynucleotide of claim 224, wherein said isolated polynucleotide is ~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of SEQ ID NO: 2.
228. (Currently amended) The isolated polynucleotide of claim 224, wherein said isolated polynucleotide is ~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of the complement of SEQ ID NO: 2.
229. (Currently amended) The isolated polynucleotide of claim 224, wherein said isolated polynucleotide is ~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of SEQ ID NO: 3.
230. (Currently amended) The isolated polynucleotide of claim 224, wherein said isolated polynucleotide is ~~substantially~~ at least 90% complementary to a nucleic acid having the sequence of the complement of SEQ ID NO: 3.
231. (Previously presented) The isolated polynucleotide of claim 224 further comprising a promoter operably linked to said sequence.
232. (Previously presented) The isolated polynucleotide of claim 231, wherein said promoter is selected from the group consisting of a constitutive promoter, an inducible promoter and a tissue specific promoter.

- 233. (Previously presented) A nucleic acid vector comprising the isolated polynucleotide of claim 224.
- 234. (Currently amended) The nucleic acid vector of claim 233 selected from the group consisting of a plasmid, an expression vector and a ~~virus~~ viral vector.
- 235. (Previously presented) An isolated cell comprising the nucleic acid vector of claim 233.
- 236. (Previously presented) An isolated polynucleotide comprising a nucleotide sequence that encodes a protein comprising the amino acid sequence of SEQ ID NO: 4.
- 237. (Previously presented) The isolated polynucleotide of claim 236 wherein the isolated polynucleotide encodes the polypeptide of SEQ ID NO: 4.
- 238. (Previously presented) The isolated polynucleotide of claim 236 further comprising a promoter operably linked to said sequence.
- 239. (Previously presented) The isolated polynucleotide of claim 238, wherein said promoter is selected from the group consisting of a constitutive promoter, an inducible promoter and a tissue specific promoter.
- 240. (Previously presented) A nucleic acid vector comprising the isolated polynucleotide of claim 236.
- 241. (Currently amended) The nucleic acid vector of claim 240 selected from the group consisting of a plasmid, an expression vector and a ~~virus~~ viral vector.
- 242. (Previously presented) An isolated cell comprising the nucleic acid vector of claim 240.
- 243. (Previously presented) An isolated polynucleotide comprising a nucleotide sequence that

encodes a protein comprising an amino terminal 40 KDa fragment of the sequence of SEQ ID NO: 4.

- 244. (Previously presented) The isolated polynucleotide of claim 243 wherein the isolated polynucleotide encodes the amino terminal 40 KDa fragment of the sequence of SEQ ID NO: 4.
- 245. (Previously presented) The isolated polynucleotide of claim 243 further comprising a promoter operably linked to said sequence.
- 246. (Previously presented) The isolated polynucleotide of claim 245, wherein said promoter is selected from the group consisting of a constitutive promoter, an inducible promoter and a tissue specific promoter.
- 247. (Previously presented) A nucleic acid vector comprising the isolated polynucleotide of claim 243.
- 248. (Currently amended) The nucleic acid vector of claim 247 selected from the group consisting of a plasmid, an expression vector and a ~~virus~~ viral vector.
- 249. (Previously presented) An isolated cell comprising the nucleic acid vector of claim 247.